

# **Trigger Tables**

**Jonathan Lewis**

**Ace Training**

**March 26 2004**

**(direct copy of January 2004 slides)**

# What's in a Name

- **PHYSICS\_2\_01**[**2**,**384**,**416**]
  - **Table name**
    - “1\_01” is administrative major version
  - **Table version**
    - Name and version specify physics content
  - **Level 2 tag set**
    - CVS tags of Level 2 alpha code
    - Tied to physics table
  - **Level 3 tag set**
    - Level 3 executable, tcl and calibration set
    - Exe build driven from table
    - Code is base release plus a patch list
- Pet Peeve: Write the complete name in the e-log
  - “[2,384,416]” without the name is meaningless

# Building and Testing

- **Table built with database GUI by trigger drones**
  - GUI instruction is on need-to-know basis
  - GUI performs consistency checks and builds L2 exe
    - Assigns L2 tagset
- **L3 gang builds tcl and exe**
  - Usually 1-2 hours
- **Initial test without beam**
  - This means no HEP colliding beam
  - Studies, injection, etc. are OK
  - Start from AAA\_SHOT\_SETUP and change trigger table
- **Beam test usually at end of store**
  - Minimize integrated luminosity
- **If gurus approve, will make it default on the white board**

## Building and Testing, 2

- Have ability to change L2 and L3 executables without new physics table
  - Fix bugs
  - Improve low-level code
- Occasionally will test new L2 or L3 tagset for existing table
- May subsequently change defaults
- For table (physics) changes, usually have round of PHYSICS\_TEST tables before copying to PHYSICS
  - Attempt to limit confusion later

# Decoupled Tables

- In usual mode of operation, Level 3 is driven by Level 2 decisions
  - Explicit paths
- For non-physics tables, can have Level 3 process all events the same way
  - Use for cosmics, L1/L2 tests, etc.
  - One tagset can be used for many tables
  - Usually have two current
    - Null
    - All reconstruction
      - When in doubt, use the current All-reco tagset for decoupled operation
  - Single output stream only

# Decoupled Tables, 2

- Decoupled tables use different RunControl menu from physics tables
  - Separate columns for L1/L2 and L3
  - Can now specify L3 need from description

Trigger Type Selector L1+L2...L3 Decoupled

Select a row of parameters from each of the two lists below

PHYSICSTABLE	TAG	L2	CREATED		L3	DESCRIPTION	CREATED
CCAL_TEST	1	356	2003.04.03	▲	409	L3_TEST_51_PASS_ALL_RECO v1 5.1.0 test table	2003.12.10
CCAL_TEST_TRACKS	1	370	2003.12.18		406	TEST_L3P55 v2 4.8.4 for RH7.3	2003.11.06
COSMICS	12	364	2003.11.06		405	NULL v2 4.8.4 for RH7.3	2003.11.05
COSMICS	12	361	2003.11.06		403	L3_PASS_ALL_RECO v11 RH7.3	2003.10.06
COSMICS	12	358	2003.11.06				
COSMICS_L2_MUON	1	374	2003.12.23				
COSMICS_L2_MUON	1	373	2003.12.23				
COSMICS_NOTRACKS	6	353	2003.05.06				
L2_TORTURE	15	351	2003.11.12				
MINIMUM_BIAS_1	11	368	2003.05.06				
MUON_TEST	37	375	2003.12.19				
MUON_TEST	37	371	2003.12.19				
SUMETS	4	352	2003.05.06	▼			

Select None Cancel